

PATENT

-18-

REMARKS:

Claims 7, 8, 10-13, 16-27, 33-34, and 36-40 have been allowed.

Claims 1-6, 9, 28-32, and 41-44 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent Application Publication No. 02-188836 ("Kon") in view of U.S. Patent 6,289,055 ("Knotz"). In response, claims 1 and 28 are hereby amended. Applicants respectfully contend that claims 1-6, 9, 28-32, and 41-44 as amended are patentable over the cited art for the following reasons.

Kon's integrated circuit 6 has three external nodes (9, 10, and 11) and includes test circuitry coupled to external nodes 9, 10, and 11. The test circuitry is configured to generate a test mode control word (and to assert the test mode control word at the outputs of decoder 16) in response to test data (test mode setting data "I") received at node 10 from an external source. The test data bits are received serially at node 10, and are shifted into register 15 when test mode permission bit "d" (received at node 9) is high. When test mode permission bit "d" is low, decoder 16 responds to test data (e.g., four bits of the test data asserted in parallel, in a specifically described embodiment) asserted from register 15 (to decoder 16) by generating a test mode control word, and asserting the test mode control word to circuitry (not shown) which is characterized as "operational circuitry" by the Examiner. We shall refer to the circuitry receiving the test mode control word in this paper as "operational circuitry" for convenience, although it is not described in Kon. The test mode control word causes the operational circuitry to operate in one of a number of possible test modes (i.e., in a specific test mode determined by the test data word decoded to generate the test mode control word).

When test mode permission bit "d" is high, decoding operation of Kon's decoder 16 is inhibited.

Assuming for the purpose of argument that Kon discloses test circuitry configured to operate in a test mode in response to test data received at an external node (e.g., test mode

PATENT

-19-

setting data "f" received at node 10), Kon fails to teach or suggest that the test circuitry is configured to assert to operational circuitry a "control signal" in response to an external control signal received at the same external node, where the control signal has a state determined by the external control signal but not by the test data as recited in amended claim 1. The output of Kon's decoder 16 is not determined by any signal other than test mode setting data "f" received at node 10. Even if test mode permission bit "d" received at Kon's node 9 is considered to be an "external control signal" of the type recited in amended claim 1, Kon fails to teach or suggest that any signal other than test mode permission bit "d" received at node 9 is "test data" of the type recited in amended claim 1.

Similarly, even assuming for the purpose of argument that Kon discloses a method (for controlling operational circuitry within an integrated circuit, and performing at least one of testing, configuration, and reconfiguration of the operational circuitry) including the step of operating test circuitry of the integrated circuit in at least one test mode in response to test data received at an external node (e.g., test mode setting data "f" received at node 10), Kon fails to teach or suggest asserting a control signal (from the test circuitry to the operational circuitry) in response to an external control signal received at the same external node, wherein the control signal has a state determined by the external control signal but not by the test data as recited in amended claim 28. The output of Kon's decoder 16 is not determined by any signal received at node 10, other than test mode setting data "f" received at node 10. Even if test mode permission bit "d" received at Kon's node 9 is considered to be an "external control signal" of the type recited in amended claim 28, Kon fails to teach or suggest that any signal other than test mode permission bit "d" received at node 9 is "test data" of the type recited in amended claim 28.

Since amended claims 1 and 28 are patentable over Kon (as explained above), all claims that depend directly or indirectly from claim 1 or 28 are patentable over Kon.

Knotz discloses transmitting a modulated signal to an integrated circuit and employing circuitry in the integrated circuit to extract at least two signals from the

PATENT

-20-

modulated signal. However, Knotz includes no teaching or suggestion that such a modulated signal should be asserted to "test circuitry" as recited, or that both "test data" and a control signal should be extracted from such a modulated signal. Knotz also fails to teach or suggest configuring test circuitry to assert to operational circuitry a control signal in response to an external control signal received at the same external node as are test data, where the control signal has a state determined by the external control signal but not by the test data as recited in amended claim 1. Knotz also fails to teach or suggest asserting a control signal (from test circuitry to operational circuitry) in response to an external control signal received at the same external node as are test data, where the control signal has a state determined by the external control signal but not by the test data as recited in amended claim 28.

Because neither Kon nor Knotz teaches or suggests the noted limitation of claim 1 or 28, claims 1 and 28 as amended (and all claims depending directly or indirectly therefrom) are patentable over Kon and Knotz, read individually or in combination.

Claims 14, 15, and 35 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kon in view of Knotz and further in view of U.S. Patent 5,557,571 ("Kato"). In response, claims 1 and 28 are amended. Applicants contend that claims 14, 15, and 35, as dependent on amended claims 1 and 28, are patentable over the cited art for the following reasons.

For the reasons set forth above, amended claims 1 and 28 (and thus claims 14, 15, and 35) are patentable over Kon and Knotz, read individually or in combination. Kato also fails to teach or suggest configuring test circuitry to assert to operational circuitry a control signal in response to an external control signal received at the same external node as are test data, where the control signal has a state determined by the external control signal but not by the test data as recited in amended claim 1, and Kato fails to teach or suggest asserting a control signal (from test circuitry to operational circuitry) in response to an external control signal received at the same external node as are test data, where the

PATENT

-21-

control signal has a state determined by the external control signal but not by the test data as recited in amended claim 28. Thus, claims 1 and 28 (and all claims depending directly or indirectly therefrom) are patentable over Kato, Kon, and Knotz, read individually or in combination.

Applicants respectfully request consideration and allowance of all pending claims that have not already been allowed.

Respectfully submitted,

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